

History

- 1962**—U.S. Army Aeromedical Research Unit (USAARL) was established to support Army aviation and airborne activities
- 1969**—Re-designated as a Laboratory (USAARL)
- 1974**—Bioacoustics and vision research programs transferred from U.S. Army Medical Research Laboratory to USAARL
- 1977**—Mission expanded to include health hazard assessments and countermeasures research on air and tactical ground vehicles and weapons systems
- 1981**—Moved into new laboratory facility
- 1983**—Developed crushable ear cups for flight helmet to prevent basilar skull fractures
- 1991**—Awarded the Army Superior Unit Service Ribbon for Soldiers' participation in deployed research protocols
- 2004**—Dedicated in memory of the "Father of Army Aviation Medicine," Major General Spurgeon Neel
- 2019**—Transition to Army Futures Command to support modernization efforts, like Future Vertical Lift and Soldier Lethality
- 2019**—USAARL acquired HH-60M Black Hawk helicopter, "FORGE 612"
- 2020**—USAARL completed in-flight assessment of respiratory protective masks to sustain the Army's mission during the COVID-19 pandemic
- 2022**—USAARL Celebrated its 60th Anniversary

Dedicated

TO SAVING
THE LIVES
OF OUR
WARFIGHTERS



U.S. ARMY AEROMEDICAL Research Laboratory



Integrating the Sciences

of Aviation and Medicine
to Optimize Human
Protection and Performance

For More Information Contact:

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Optimizing
HUMAN PROTECTION
SINCE 1962



Our Mission

USAARL's mission is to deliver scientific solutions that save lives and maximize performance of Aviators, Airborne Warfighters, and Ground Warriors.

USAARL's vision is to be the DoD's focal point for research and expert consultation on biomedical, physiological, and psychological issues affecting military rotary-wing aircrew and Warfighters.

USAARL's expertise enhances the performance and safety of current and future combat systems. The Laboratory's products and services translate empirical data to solutions addressing critical requirements gaps impacting Warfighters.

USAARL utilizes state-of-the-art platforms to conduct RDT&E in simulated and operational environments and has a broad network of collaborators within the aviation and medical communities to provide data-driven products informed by Warfighter touchpoints.



Research Areas

Warfighter Protection Group

- Aeromedical Integration
- Human Integration
- Modeling and Simulation

Injury Biomechanics & Protection Group

- Survival Analysis
- Biodynamics Data Resource Analysis
- Accelerative Injury
- Soldier Monitoring and Applied Research Telemetry
- Blunt Impact Injury Prevention
- Musculoskeletal Injury Prevention

Enroute Care Group

- Airworthiness Certification for Equipment used in Military Aircraft
- Medical Evacuation Transport
- Medical Interior Design Enhancements



Unique Capabilities

The world's only research-dedicated Black Hawk helicopter (HH-60M) capable of collecting pilot performance and physiological data

A suite of research simulators including:

- A full-motion, full-visual Black Hawk simulator configurable to the Alpha, Lima, or Mike Model
- A UH-60M Black Hawk Glass Cockpit Academic Procedural Tool
- An unmanned aerial system simulator configurable to Grey Eagle and Shadow platforms

The Army's only Aeromedical Equipment Test and Evaluation Laboratory

Capability to collect and evaluate physiological metrics

Suite of drop and acceleration platforms

3D Prototyping and Fabrication Shop

